Before the
Federal Communications Commission
Washington, DC 20554

In the Matter of	)	
	)	RM-10781,
	)	RM-10782,
The Amateur Radio Service:	)	RM-10783,
Proposed Changes to the Morse Code (CW)	)	RM-10784,
Proficiency Requirement for Operator	)	RM-10785,
Access to the Amateur Radio Bands	)	RM-10786, and
Below 30 MHz.	)	RM-10787
	)	

COMMENTS TO PETITIONS FOR RULEMAKING

GREETINGS:

INTRODUCTION

As all parties concerned are no doubt aware, the Morse code telegraphy proficiency requirement for Amateur Radio Service operators has been eliminated from the International Telecommunications Union (*ITU*) *Radio Regulations*. This change was effected on 5 July 2003 at the World Radiocommunication Conference 2003 (*WRC-03*), Geneva, by revising Article 25.5 §3 1 of these regulations.

The revised Article 25.5 now gives the administrations of individual member nations, such as the US Federal Communications Commission (*FCC* or *Commission*), discretion to "…determine whether or not a person seeking a license to operate an amateur station shall demonstrate the ability to send and receive texts in Morse code signals."

Previously, knowledge of or demonstration of Morse code proficiency had been required by ITU regulation for amateur radio operation on all frequencies below 30 MHz. These

frequencies include all of the amateur High Frequency (HF or shortwave) bands, and the one amateur Medium Frequency (MF or medium-wave) band. *Note: For purposes of this document, references henceforth to "HF" or "High Frequency" or "shortwave" shall be deemed to include MF or Medium Frequency or medium-wave, as well. This is in fact colloquial nomenclature among amateur radio operators.*

The various petitions for rulemaking captioned above seek various degrees of relief from the somewhat burdensome requirement for US-licensed Amateur Radio Service operators (*amateurs*), presently needed to access the very popular and preferential international High Frequency amateur radio bands. Additionally, some of the above petitions seek reduction or elimination of the regulatory CW (or other) subbands on HF.

BACKGROUND

In 2000, the FCC rightfully changed all then-existing Morse code telegraphy proficiency requirements to the basic 5-words-per-minute as tested under examination Element 1, by amending 47 CFR §§97.501, et seq. (65 FR 6550). Although this regulatory relief did much to facilitate HF bands access to radio amateurs of more diverse technical interests, it still poses a total obstacle for amateurs and prospective amateurs in operating these shortwave bands.

In that same rulemaking (65 FR 6550), the Commission also consolidated all new-issue licenses and future license upgrades into just three classes: Technician, General, and Amateur Extra. Under this new licensing regime—similar to the previous and coexisting licensing scheme—access to the favored HF bands is limited to General and Amateur Extra licensees as well as to extant Advanced, Technician "Plus" (+ Element 1), and Novice (restricted to CW mode only) class licensees.

Presently, any individual wanting *substantial* operating privileges within the amateur bands below 30 MHz and not already so qualified, must obtain either the General or the Amateur Extra class license.

DISCUSSION

Other examination elements in the Amateur Radio Service remain in place to determine various classes of license applicant qualifications in matters other than the Morse code. These matters include radio and electronics theory, applicable rules and regulations, as well as operating skill. Whatever degree of relief from the Morse code proficiency examination requirement may eventually be provided in the instant proceedings, the balance of the license exam elements remain extant for both General and Amateur Extra class future licensees. Since the examination elements other than Element 1 are not at issue here, sufficient requirements to determine applicant qualifications for the higher-class licenses will still be in place to safeguard the integrity of this service.

As noted above, a number of amateur licensees would like to see the reduction or elimination of the HF subbands originally intended (I believe) for Morse code telegraphy operation. It is important to note that *none* of these so-called "CW subbands" are limited by regulation to CW-only operation. Various digital non-speech modes including radio teletype (RTTY), AMTOR, and PSK-31 are permitted and are in fact actively using these subbands right along with CW. Rather than being "CW subbands" these subbands are more *realistically non-telephony* subbands.

Another type of subband we must consider here are the incentive-licensing band segments. Varying portions of the HF amateur bands are open to amateurs of the various licensing classes. Those with higher license classes have greater privileges. To my knowledge,

a number of amateur licensees would also like to see the elimination or reduction of these incentive-based preferential band segments, as well.

CONCLUSION

Manual telegraphy has finally, in only recent years, been found by both industry and government to be *functionally* obsolete for *regular day-to-day operations* (although CW remains a viable alternative for emergent and contingent situations. See below.) Given this, and in light of the aforementioned ITU action, it is now time to end the absolute requirement of Morse code proficiency for Amateur Radio Service licensees, presently required to enjoy access to any portions at all of the amateur spectrum bands below 30 MHz. Clearly, it is ludicrous to require knowledge of Morse code to operate amateur wireless communications modes *other than* CW. Radiotelephony is perhaps the simplest mode to operate. Speech transmission and reception on the international shortwave bands does require some degree of technical competence, and certainly requires knowledge of specific radio service regulations. However, HF 'phone operation does *not* in practice require any knowledge of Morse code telegraphy operation.

Some petitioners are calling for the total elimination of Morse code testing requirements for the Amateur Radio Service. Such qualification elimination would consequently allow present Technician class licensees to gain substantial access to the HF bands by upgrading their license class to General, simply passing the amateur General class written license examination, Element 3. New amateur licensees likewise would have to pass only the Technician exam, Element 2, and General class Element 3 to attain these same spectrum privileges. Again, doing so would be consistent with present ITU regulation.

A number of Amateur Radio Service licensees however, agree that in the alternative, a Morse code examination qualification should not be required for access to *substantial portions*

of the various HF amateur bands. This group believes that elimination of existing Morse testing requirement, Element 1, for General class licensees and for Technician class licensees, would in fact be sufficient in facilitating *substantial* access to the amateur shortwave bands. Present and future amateur Technicians would immediately gain access to the extant "Novice" portions of the HF bands, which are also currently open to Technician "Plus" (+ Element 1 certification) licensees. Far more significant though, is that existing and future General class amateur licensees would immediately gain access to *all of the amateur bands below 30 MHz except for the subbands reserved for Advanced class and for Amateur Extra class licensees* present in only four of the ten amateur bands below 30 MHz. Moreover, the Advanced class license is no longer issued, and the Advance class subbands could become open to General class licensees.

Clearly, Morse code testing requirements for the General class amateur license as well as the Technician class license for HF privileges, should be dropped. *However*, the existing Morse code examination, Element 1, should be retained for the Amateur Extra class, the highest amateur radio license. *Coincidental to this*, the HF band segments reserved for Advance class licensees should be opened to all General class licensees, but the existing Amateur Extra class HF subbands must be maintained. Opening up the Advanced class subbands would then preclude General class licensees from only a few narrow band slices in the 40, 20, and 15-meter bands that are the Amateur Extra subbands; not a significant burden for any amateur radio licensees. And, it is important to note that retaining the Morse code proficiency requirement for only this premium license class will serve two meaningful purposes:

One will be to help retain the integrity of the incentive license system, which has already been downsized as a result of simplification in the Amateur Radio Service restructuring in 2000

(65 FR 6550). Secondly, retaining the present Morse code proficiency examination in the highest class license will serve to ensure that a pool of amateur radio operators remain that are literate in Morse code, and functional in CW operation. Retaining Morse code functionality for at least some amateur licensees is consequential for two reasons, in itself: The first is the fact that the CW, our most basic digital mode, has long been proven to propagate intelligibly through conditions far too adverse for other data and speech modes. The second is the fact that CW is by far the most spectrally efficient mode (comparing bandwidth alone) of any other modes; data or speech, digital or analog. (These facts are well-documented and well-understood in the RF engineering community, and among others literate in communications technology, and thus need no further substantiation.) Continued Morse code CW operation deserves to be encouraged, not buried.

Finally, in retaining the amateur radio Element 1 Morse code examination requirement for the Amateur Extra license for the reasons delineated above, it is collaterally essential to both retain all Amateur Extra HF subband slivers while realigning the present Advanced class HF subbands to those of General class licensees, to substantially expand the General class HF subbands.

SUMMATION

To advance the Amateur Radio Service, for reasons given above: **(1) Morse code testing requirements for the General class amateur radio license, as well as the Technician class license for HF privileges, should be dropped. (2) Morse code Exam Element 1 should be retained for the Amateur Extra class license. (3) HF band segments reserved for Advance class licensees should be opened up to all General class amateur radio licensees, but the existing Amateur Extra class HF subbands must be maintained.**

SUBMITTED ELECTRONICALLY

This day, 29 September 2003

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General Mobile Radio Service Licensee/System Operator	WPUC720
Amateur Radio Service *Extra*-Class Licensee	N3HOE

Member – American Radio Relay League (ARRL)
Member – Salvation Army Team Emergency Radio Network (SATERN)
Affiliate Member – Radio Emergency Affiliated Communications Teams (REACT)
Ex-officio – Baltimore County, Maryland Fire Communications Committee
Ex-officio - Baltimore County, Maryland 911 Task Force
Former Member – TIA / EIA Standards Committee TR45-AHAG

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